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The UCSD-CC Server-FTP Facility

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1.0 Introduction

The UCSD Computer Center is a service site that must support itself by charging for the usage of its facilities. Because of this, the prospective user of our Server-FTP must supply a valid usercode (USER) and password (PASS) before any further FTP commands are accepted.

Through FTP, you are allowed to access or store files on our disk or on any of our 7 or 9-track tape drives. Each individual file transfer is handled by a separate process on the B6700 and the user is charged for the processor, I/O, core, and (if any) tape charges incurred by this process (note that these charges are quite minimal). Each of these transfer processes is given a separate "job" number and is therefore billed separately for each transfer by our accounting system.

Please note that we have implemented FTP as defined in RFC# 354 (July 8, 1972) except as noted.

2.0 FTP Commands

(1) USER

As mentioned, you must supply a legal, known, UCSD-CC usercode. Following which, the "230" message will be given, asking for the corresponding password.

(2) PASS

After the 'USER' command is accepted, you must then enter the PASS command giving the corresponding password. If the usercode and password are of correct form, if they match, if there is money in your account, if your account is active, and if you are authorized for "Q1" service, then you will be properly logged-on and the "230" response will be returned.

(3) BYTE

We allow only the (default) byte-size of "8" - all others will be rejected.

(4) MODE

We only allow the (default) mode of "S" (Stream) - all others will be rejected.

(5) TYPE

We allow "A" (ASCII) and "I" (Image) types - all others will be rejected. As in standard-FTP, "A" is default.

(6) STRU

We allow both "F" (file) and "R" (Record) structuring. Record-structuring is meaningful only in ASCII/Stream, where CRLF is used as End-of-Line. When using Record-structuring in a STOR to us, if an incoming record is longer than the "MAXRECSIZE" of the designated B6700 file, then we close the data connection, issue a reject message, and abort the local (B6700) transfer process. If a record of incoming data is shorter than the specified MAXRECSIZE of the file, then the record is filled-out with blanks in type-ASCII or with nulls (0) in type-Image. With Image, of course, this applies only to the last record of the B6700 file. As in standard-FTP, "F" is default.

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(7) ALLO

We have taken the liberty with the FTP-protocol of using the "ALLO" command to enable the user to designate the B6700 "file-attributes" of his UCSD file. The FTP-standard form of ALLO is ignored (i.e. "ALLO n", where 'n' is some integer), although a "200" response will be returned in this case. Our "special" form is where the ALLO verb is immediately followed by a "#", which is in turn followed by a parenthesized list of standard B6700 file attributes as used on B6700 "label-equate" cards. Following is an example of this usage;

ALLO #(KIND=TAPE9,MAXRECSIZE=10,MYUSE=OUT,TITLE=XYZ)

If this form of the ALLO command is not given prior to a STOR, then the file will have the name given in the STOR command and will have the same characteristics as a standard "CANDE" type-DATA disk file (i.e. where (MAXRECSIZE=14,BLOCKSIZE=420,AREAS=15,AREASIZE=450)). If no special ALLO is given preceeding a RETR, then the file attributes are those of the file itself as it exists on disk and are not altered. In cases where the special ALLO is given prior to a transfer, the name of the file is determined by the TITLE attribute and the name given as the pathname of the STOR or RETR command is ignored. If no TITLE is specified in an ALLO, then the internal filename of "LOCALFILE" is used. With the "file-attribute-list" form of the ALLO command, the user has much of the same liberty to govern file characteristics as he does in using a "label-equate" card with a normal B6700 job. For information concerning the available file attributes and their possible values, please contact the UCSD-CC consultant. Additionally, you must remember that when doing a STOR to a tape at UCSD, you must specify MYUSE=OUT in the file-attribute list of the ALLO command. Also, when transferring to or from tapes at UCSD, you must make prior arrangements with our operators (over TELNET) to locate and mount the tape. We will soon implement a means whereby you may communicate with the operators directly through FTP.

(8) XLINE

This special command sets Record-structuring in our Server-FTP without the foreign user having to use a STRU R command (which may be rejected by his own host system). This is specifically useful when transferring text files between UCSD and TENEX's (which do not implement Record-structuring) - i.e., if we are sending, we will append CRLF's to the end of each line of text (we do not store these in the file) and will store a line upon receiving data when a CRLF is seen, stripping the CRLF. Entering "XLINE OFF" will restore File-structuring on our end.

(9) RETR , STOR

As specified in standard-FTP except as modified by the "special" ALLO command (see part (7)).

(10) APPE

Not implemented at this time, but will be in the near future.

(11) DELE , RNTO , RNFR

Not implemented. It is suggested that to perform these functions, the user log to our TELNET server ("CANDE"), invoke the "LIBMAINT" program (simply type LIBMAINT), and say;

REMOVE file-name

or

CHANGE file-name-1 TO file-name-2.

Say BYE in order to exit LIBMAINT.

(12) ABOR , BYE

As specified in standard-FTP; except that, until further notice, a BYE given while a transfer is in progress will not be queued for action following the transfer.

Any commands not mentioned above are not yet implemented.

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